Bell Canada
The telephone in Canada

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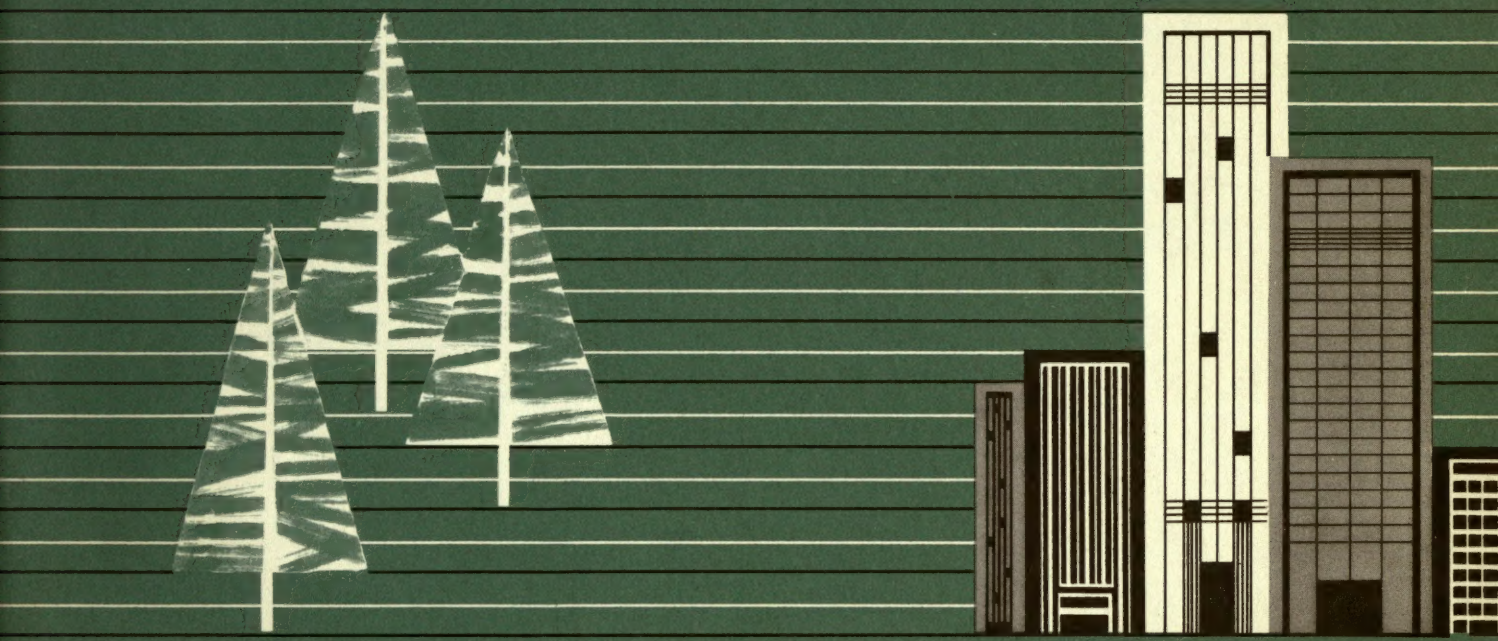


THE TELEPHONE IN CANADA

Gleaming wires stretch across the land . . .
radio relay towers reach toward the sky,
bearing messages to all parts of the country . . .
and beneath the sea, cables carry messages
to other lands . . . switches click and whir
in hundreds of telephone offices from
Newfoundland to British Columbia as they
handle a nation's communications . . .
many thousands of men and women from coast
to coast work tirelessly to bring Canadians
the best possible communications service.
This is Canada's telephone industry, touching
the lives of more than 18 million people.
The pages that follow tell the story
of the telephone industry in Canada and
the services it provides for you.
Much of our story is about The Bell Telephone
Company of Canada. But many of the services
this booklet describes are also performed
by the 2500 other telephone systems
which work side by side to serve Canadians.

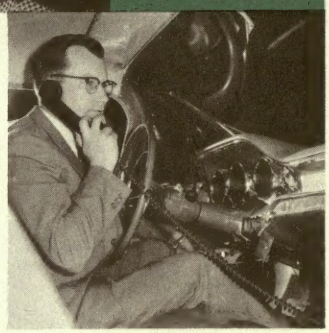
THE TELEPHONE IN CANADA

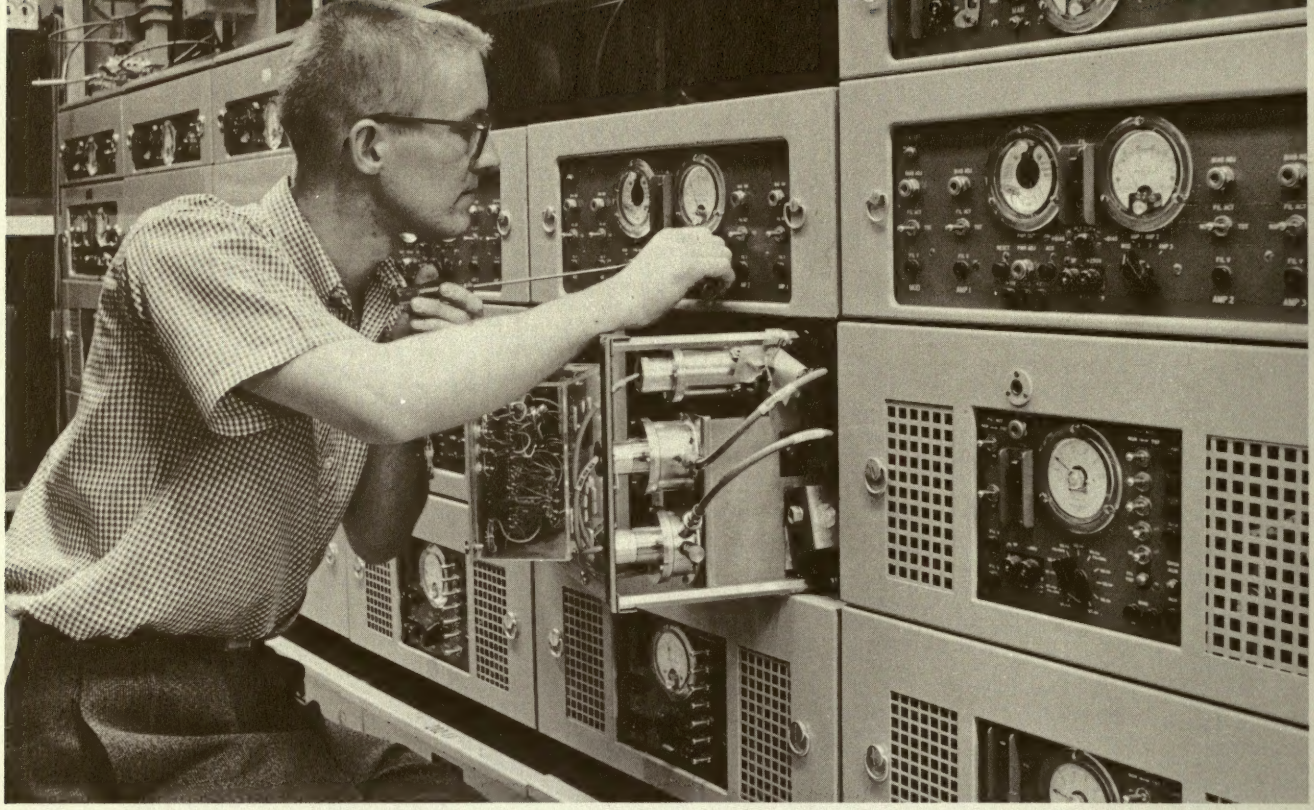
Since the 1870's, when Alexander Graham Bell did much of his research work at his family home near Brantford, Ontario, Canada has continuously been to the forefront of telephone development.

Today, with six and one half million telephones in operation, this country ranks fourth in telephone development among the nations of the world — only the United States, the United Kingdom and West Germany have a greater number of telephones. Canadians reach for the telephone more frequently than any other people; more than ten billion telephone conversations are held yearly — an average of 550 conversations per person.

The vast and complex network which makes it possible for people thousands of miles apart to converse as though they were in the same room is also used for a multitude of other purposes. Data from modern electronic business machines can be sent over telephone lines at thousands of words a minute; charts, maps and even handwritten information are transmitted with the same ease as placing a telephone call, and television and radio programs are carried throughout Canada by the nation's communications network.

Extending from the Atlantic to the Pacific, this intricate system is kept in top operating condition by some 58,000 highly skilled men and women who work in the Canadian telephone industry.





IT TAKES TEAMWORK

Your telephone service is the product of many people's efforts. Scientists, engineers and marketing people plan, develop and introduce ways to meet your communications needs most efficiently. The Business Office takes your order and arranges with Plant people to install your new telephone or move your present one. Skilled craftsmen maintain the wires, cable and equipment over which your calls travel. Trained Traffic operators handle many of your calls and are always ready to give you assistance; Accounting people work to ensure accurate billing. These telephone people are members of your community and they work together to serve you well and courteously — they strive continuously to meet your specific local needs. In short, it takes teamwork to ensure that good service is at your finger-tips.

ORGANIZED TO SERVE

When the telephone industry was first established in Canada in 1877, representatives or agents were located in many towns and cities across the country. In 1880, The Bell Telephone Company of Canada was organized to consolidate nearly all the telephone business then developing.

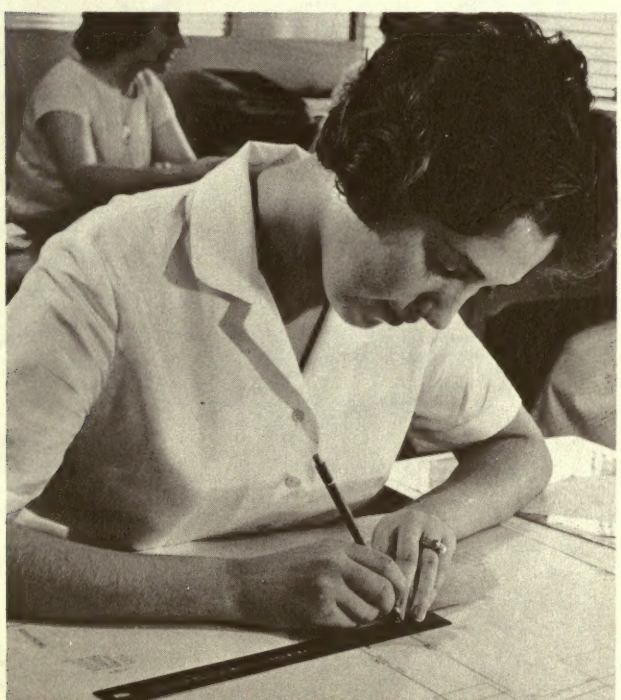
At first the Bell planned to serve the whole of Canada, but problems created by geography and the scattered nature of settlement influenced it to limit operations to Ontario and Quebec. Separate companies developed in British Columbia and the Maritimes, while responsibility for providing telephone service in the Prairies was undertaken by provincial governments.

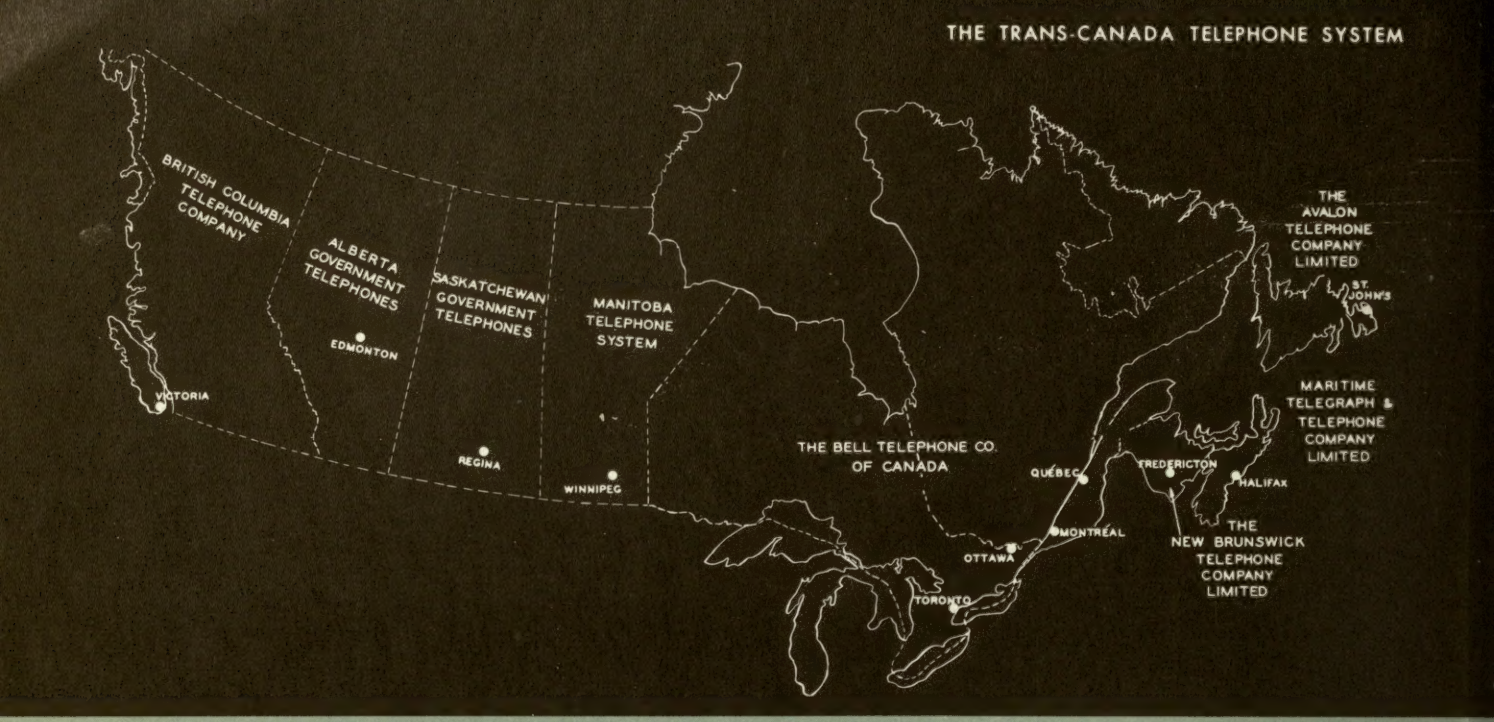
Today, the many telephone systems within this country differ widely, both in size and in the scope of their operations. They range from tiny rural cooperatives, serving perhaps a few families, to large shareholder-owned and provincially-owned systems which number their customers in the hundreds of thousands. This blend of large and small, of private and government ownership, is unique in the world.

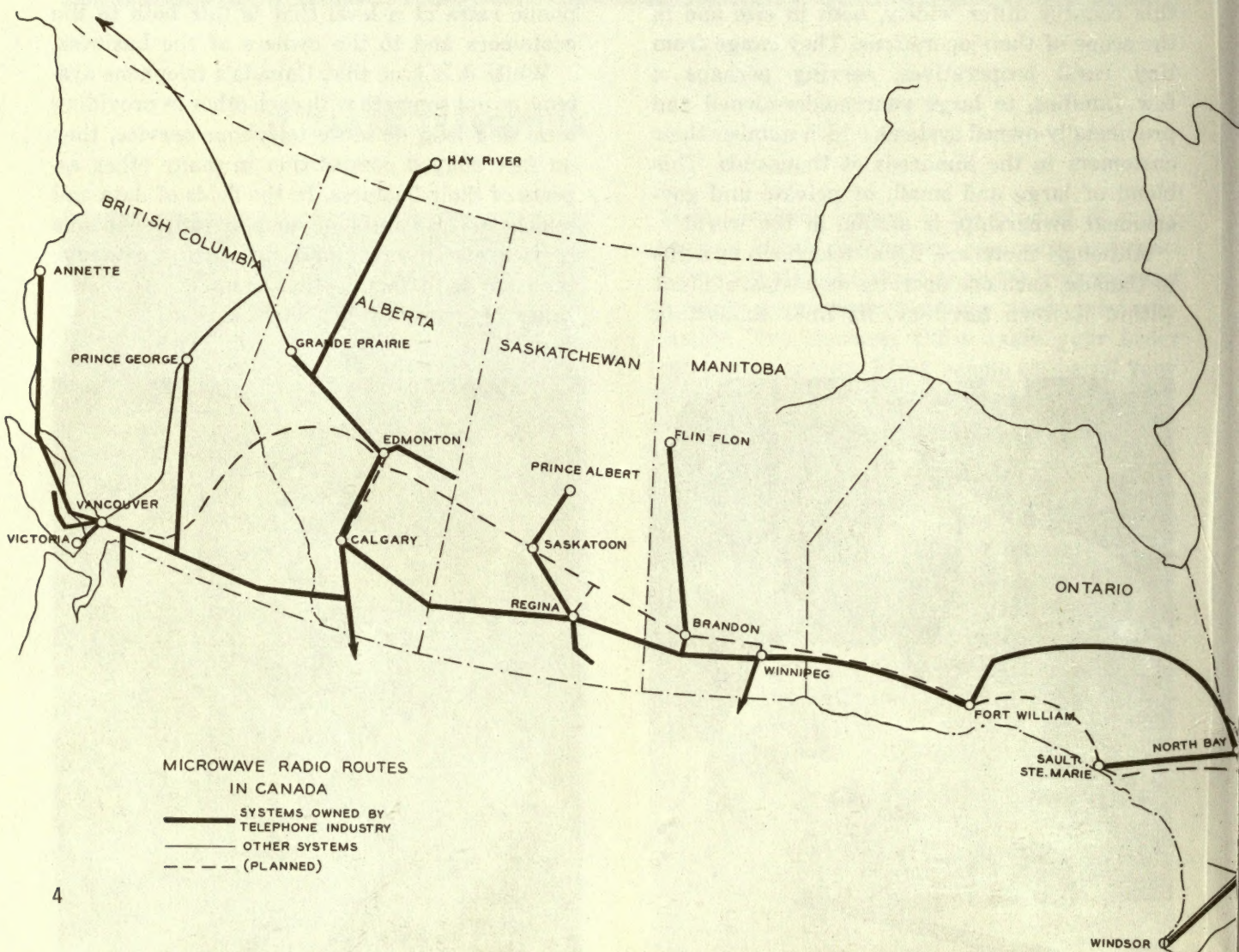
Although there are 2,500 telephone systems in Canada, each one operates as a separate unit within its own territory, its lines connecting with those of other systems. Because telephone service in a given territory can be furnished most efficiently by a single company, telephone companies do not compete with each other in providing this service — in fact, overlapping telephone systems would be as unsound as competing postal services.

In the absence of the natural regulation of prices that takes place when firms do compete for business, the vast majority of telephone systems in Canada are subject to government regulation — federal, provincial or municipal, according to their particular charters or circumstances. The rates charged by the Bell Telephone Company, for example, are regulated by the Board of Transport Commissioners for Canada. The purpose of regulation is to fix telephone rates at a level that is fair both to the customers and to the owners of the business.

While it is true that Canada's telephone systems do not compete with each other in providing local and long distance telephone service, they do face rugged competition in many other aspects of their business. In the fields of data and television transmission, mobile radiotelephone service and intercommunication, for example, they vie with many other suppliers for their share of a rapidly growing market.



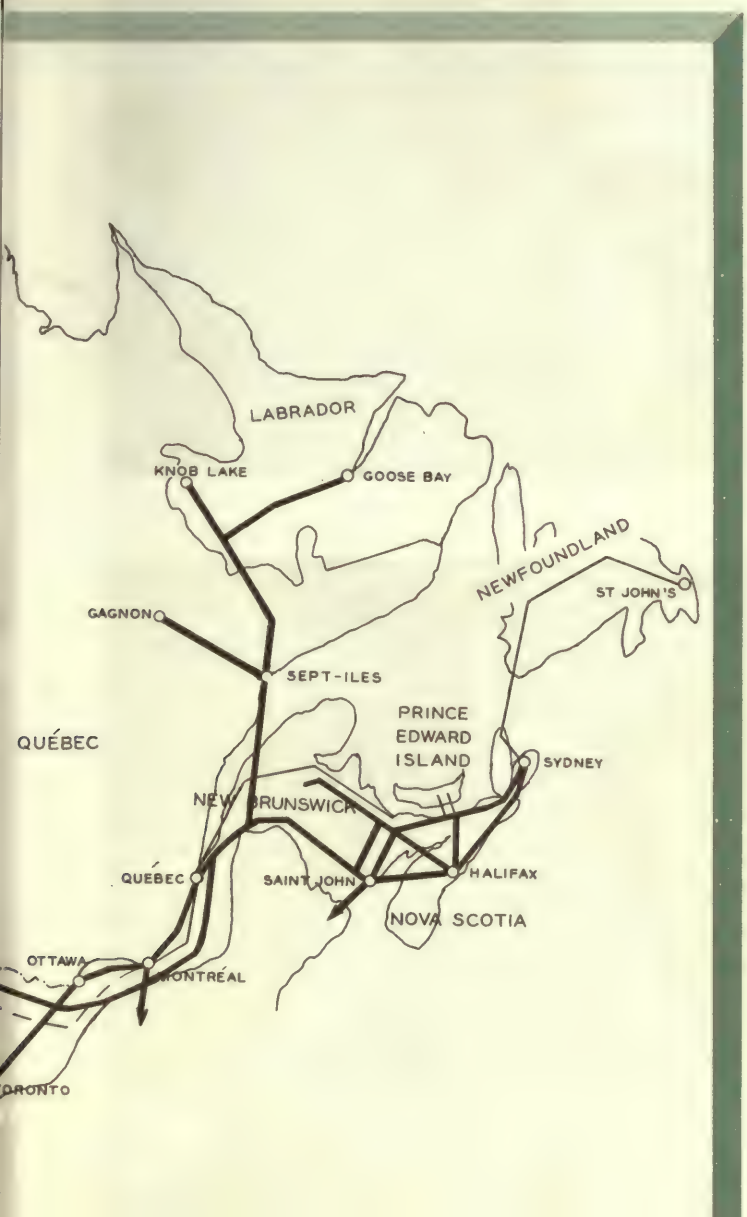

THE TRANS-CANADA TELEPHONE SYSTEM
BRITISH COLUMBIA TELEPHONE COMPANY
ALBERTA GOVERNMENT TELEPHONES
SASKATCHEWAN GOVERNMENT TELEPHONES
MANITOBA TELEPHONE SYSTEM
THE BELL TELEPHONE CO. OF CANADA
THE AVALON TELEPHONE COMPANY LIMITED
MARITIME TELEGRAPH & TELEPHONE COMPANY LIMITED
THE NEW BRUNSWICK TELEPHONE COMPANY LIMITED
VICTORIA
EDMONTON
REGINA
WINNIPEG
QUÉBEC
MONTRÉAL
OTTAWA
TORONTO
FREDERICTON
HALIFAX
ST. JOHN'S


HAY RIVER
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
ANNETTE
PRINCE GEORGE
GRANDE PRAIRIE
EDMONTON
FLIN FLON
PRINCE ALBERT
VANCOUVER
VICTORIA
CALGARY
SASKATOON
REGINA
BRANDON
WINNIPEG
FORT WILLIAM
NORTH BAY
SAULT STE. MARIE
WINDSOR
MICROWAVE RADIO ROUTES IN CANADA
SYSTEMS OWNED BY TELEPHONE INDUSTRY
OTHER SYSTEMS
(PLANNED)

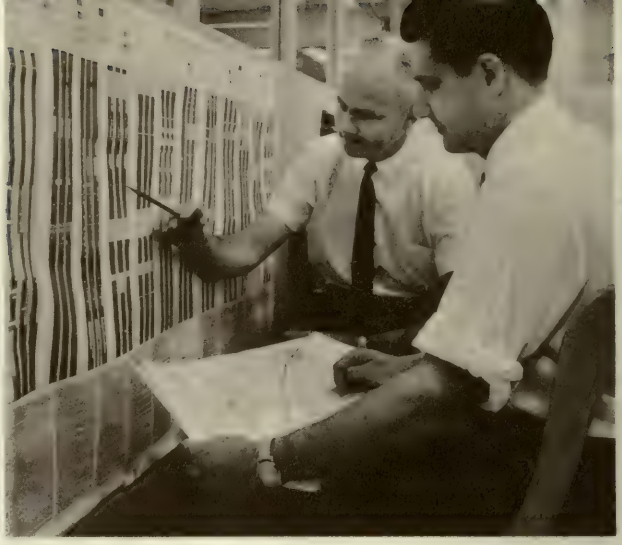
NETWORK FOR A NATION

The Trans-Canada Telephone System was established in 1931 in order to develop and maintain a coast-to-coast long distance network, connecting with the facilities of the local telephone systems which serve the nation's telephone users. Today you can reach virtually any person in the country over the vast network of telephone lines and switching offices provided by the members of The Trans-Canada Telephone System and by independent companies. The members of The Trans-Canada System are:

The Avalon Telephone Company Limited
Maritime Telegraph and Telephone Company Limited
The New Brunswick Telephone Company Limited
The Bell Telephone Company of Canada
Manitoba Telephone System
Saskatchewan Government Telephones
Alberta Government Telephones
British Columbia Telephone Company.
The Canadian Overseas Telecommunication Corporation, a Crown company which looks after communication to and from most countries outside of North America, is an associate member.



It takes an effective organization to provide the facilities needed to tie together the telephones in a country as large as ours and meet expanding needs. In carrying out these activities the System is directed by a Management Committee, composed of one representative from each of the eight Trans-Canada organizations. The members share the responsibility for setting up the pathways over which your long distance calls will travel — and which also carry numerous other kinds of communication, including television programs and data from business machines. Their craftsmen maintain this massive network of wire, cable and microwave radio, with its millions of telephone circuits linking every corner of the country.



A POOLING OF TALENTS

Although each telephone system in Canada is a separate unit conducting its operations to give the best service for each community, new and improved methods in any one company may well contribute to better service for all. Every member of the Canadian telephone industry can call on a virtually endless stream of talent — whether in operating matters, engineering, administration or any other phase of the business. Each system either possesses or can immediately obtain the assistance of the best men in the field.

In order to promote cooperation within the industry and the exchange of information about technical and operating procedures, The Telephone Association of Canada was formed in 1921.

Its twelve members include the eight members of The Trans-Canada Telephone System together with:

The Island Telephone Company (PEI)
Okanagan Telephone Company
Ontario Northland Communications
Québec-Téléphone

These telephone organizations in turn work closely with the many other independent companies and systems in Canada.

THE SCOPE OF ONE COMPANY

Large or small, every Canadian telephone company is aware of the need for close cooperation within the industry, conscious of its obligations to telephone users and proud of its contribution to the Canadian economy.

The Bell Telephone Company of Canada, the largest of the country's telephone systems, is owned by some 192,000 shareholders, of whom 97 per cent live in Canada — it has more Canadian shareholders than any other company. The Company serves some 2,500,000 customers in Ontario, Quebec, Labrador and parts of the Northwest Territories.

Each year, the Bell Telephone Company spends well over half a billion dollars in Canada. In 1962, for example, some $220,000,000 of this was invested in new plant and equipment to meet the growing need of Canadians for good communications. Another $170,000,000 was paid in wages and salaries to the more than 35,000 men and women employed by the Company. And well over $80,000,000 was paid in taxes to the federal, provincial and municipal governments. Altogether the Bell of Canada has an investment of some $2 billion in telephone equipment and facilities throughout its territory.

By many yardsticks — physical plant, the number of employees and owners, the amount of money invested — the Bell Telephone Company is a big business. But because it sells telephone service to individuals in each community it serves, it is also a local retail business. Telephone calls cannot be manufactured in advance. The equipment, or operators, must set up a special tailor-made circuit to take each call to its destination — every customer is given individual attention every time he places a telephone call.

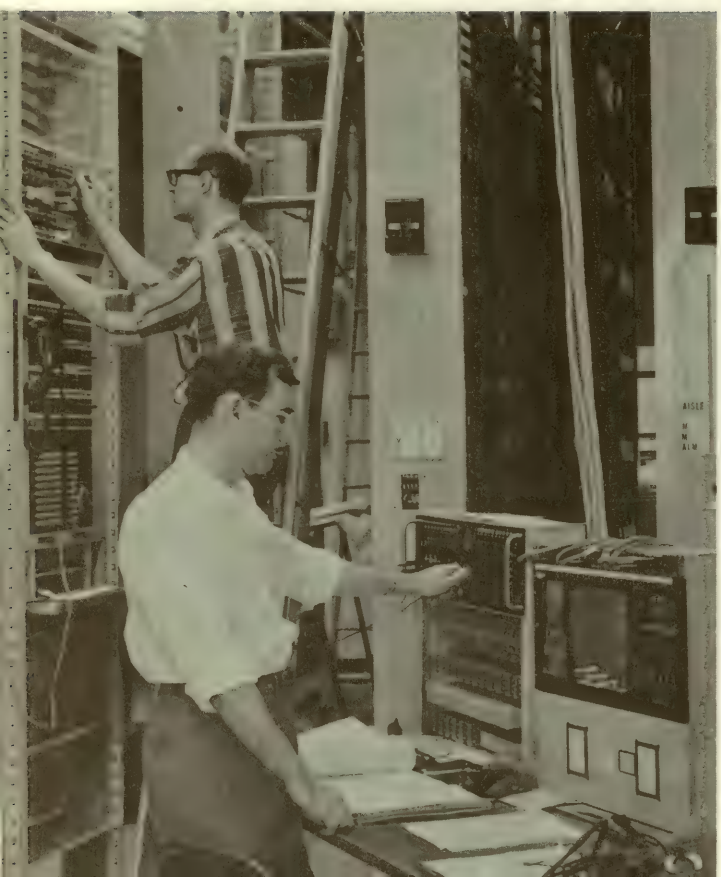
Like the Bell Telephone Company, many of Canada's most progressive telephone systems are large. They have the resources to expand and improve their communications networks in step with the needs of the public. But at the same time they recognize that their continued growth and development depends on the goodwill of the people they serve — and this goodwill can be gained only by serving each individual in the way he himself wants to be served.

A CLOSE WORKING PARTNER

Northern Electric Company, Limited

Major supplier of communications equipment to many Canadian telephone systems, the Northern Electric Company is the manufacturing subsidiary of The Bell Telephone Company of Canada.

Northern Electric acts as purchasing and warehousing agent for the Bell Telephone Company, buying everything from trucks to telephone poles from a host of other suppliers.



Northern Electric Research and Development Laboratories were opened near Ottawa in 1961. The staff of skilled scientists and technicians work closely with Canada's telephone industry in developing communications services and equipment suited to Canadian conditions – they also undertake basic research.

Northern Electric craftsmen install new equipment in telephone central offices, saving many Canadian telephone systems the expense and responsibility of maintaining their own installation forces for this specialized work.

Telephones of many kinds and in many colours are made at Northern Electric's plant in London, Ont. The efficiency and economy of telephone service depend on all equipment operating free of trouble for long periods of time, so quality is the keynote of all Northern's manufacturing operations.

Each new telephone cable is carefully tested, wire by wire, to make sure it meets high Northern Electric standards.

THE SCIENCE AND ITS SOURCE

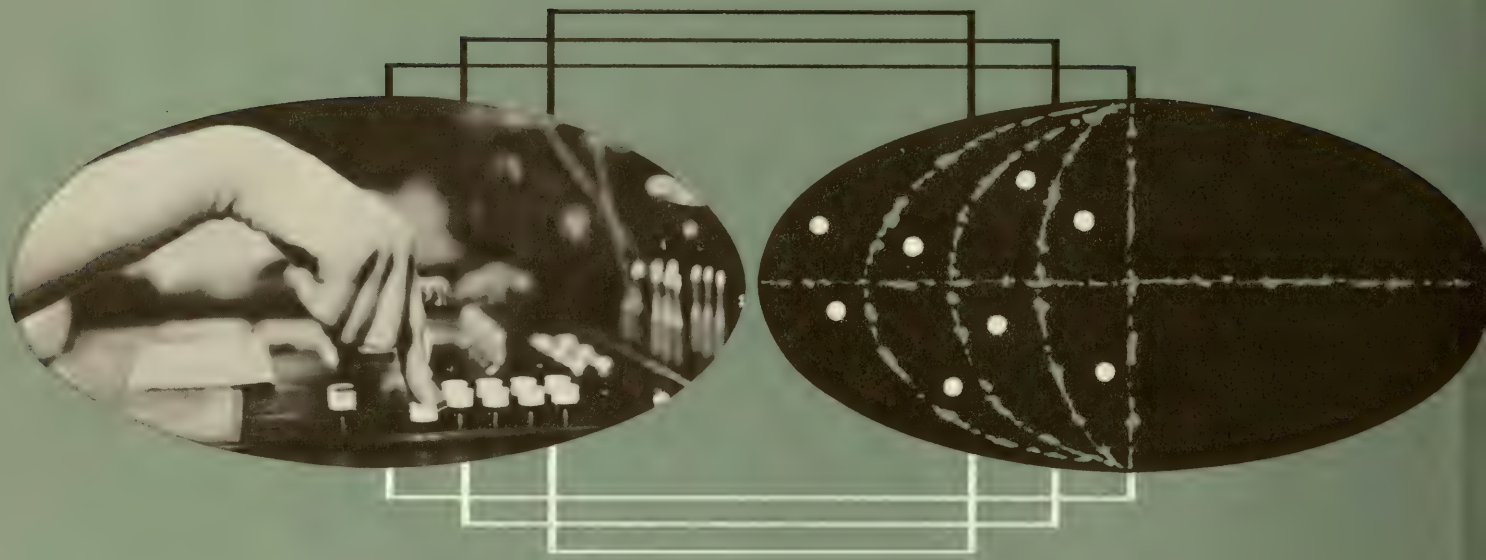
Behind the services of the telephone industry is an unbroken history of fundamental research and development in the art and science of communications.

Many Canadian systems have available to them the inventions and advice of the world's largest and most renowned communications research centre — the Bell Telephone Laboratories of the American Telephone and Telegraph Company.

From Bell Laboratories have come many of this century's most significant technological discoveries. The transistor—whose three co-inventors received the Nobel Prize in Physics — has found wide use in the telephone, radio and other industries. Another discovery was the Bell Solar Battery, the first successful device to convert the sun's energy directly and efficiently into useful amounts of electricity. More recent developments include the world's first electronic switching system for telephone offices, and successful experiments in space communications by man-made satellites.

In Canada, extensive research is carried out by the Northern Electric Company's Research and Development Laboratories in Ottawa. Scientists and technicians are engaged both in basic research and in developing services and equipment to meet specific Canadian needs and operating conditions.

Typical of the tiny devices used in the Bell Laboratories' first experimental Electronic Central Office, this printed circuit board carries transistors, diodes and other miniature components.



All across Canada communities large and small have their telephone central offices – buildings which house tier upon tier of the intricate switching equipment which makes it possible to connect your telephone with almost any other in the world. All across Canada stretch wires and cables, microwave and scatter systems – the highways of sight and sound which can carry your voice, and many other forms of communication also, to every corner of the country.

FROM YOUR HOME

The telephone wires from your home or business lead to the equipment building serving you. There, connections can be made not only to the other telephones in your community, but to nearly 98 per cent of the telephones in the world.

In some towns there may be only one equipment building, or central office, but if yours is a larger city there are many of them, all interconnected. In the central office, the wires from your telephone are connected either to dial equipment or to a switchboard where operators are on duty twenty-four hours a day.

When you make a local call, the hum of the dial tone or the operator's "number please" tells you the equipment or operator is ready to take your call. When dialing, each return trip of the dial transmits electrical impulses which correspond to each number you dial. When the number has been completely dialed, a circuit is automatically set up between your telephone and the one you are calling.

If you are calling a person served by another central office, your call travels over one or more trunk lines, or express highways, to the other central office. Automatic equipment — or an operator —in the distant central office makes the final connections.

Storage batteries in the central office furnish the direct current which transmits your voice. Motor generators or rectifiers powered by the regular electric current keep these batteries charged. (If the regular current fails, the storage batteries will provide enough power to operate the central office equipment for about four hours. In many larger offices, however, there are also gasoline or diesel powered emergency generators which can be switched on in the event of a commercial power failure.)

Ringing machines generate alternating current which makes your telephone bell ring and produces the various tones, such as dial tone, which you hear in your telephone receiver. These machines are installed in pairs — if one should break down, the other would take over.

Telephone craftsmen regularly check the central office equipment. Potential trouble is usually spotted and corrected before your telephone service can be affected.

. . . TO THE WORLD OUTSIDE

A single iron wire was used in the world's first successful long distance experiment. It carried a one-way call from Brantford to Paris, Ontario, more than 85 years ago.

As long distance communications developed, iron wire was soon replaced by pairs of copper wires. Then, many wires were encased in cable. Still later, carrier equipment was introduced. By this means a number of telephone conversations can be made to travel together over the same pair of wires.

Now, microwave radio relay provides many hundreds of long distance telephone circuits, as well as facilities for television programs and for many other forms of communication.

Much of the pioneering work on microwave in Canada was done by members of The Trans-Canada Telephone System. Microwave radio systems now serving Canadian cities span some of the most rugged terrain in North America.

The telephone industry's radio relay network is an unmistakable feature of the Canadian landscape; along the 10,000 miles of its routes some 350 steel towers, averaging 30 miles apart, mark its trail from coast to coast and from the United States border to the fringe of the Arctic.

Still another form of radio transmission — "over-the-horizon" or tropospheric scatter — extends the useful range of radio relay where it is difficult or impossible to construct intermediate relay stations every 30 or 40 miles. A high-powered transmitter and large antennae are utilized to span distances of more than 100 miles, providing communications for the far north of Canada — and reaching up even to Frobisher, on Baffin Island.

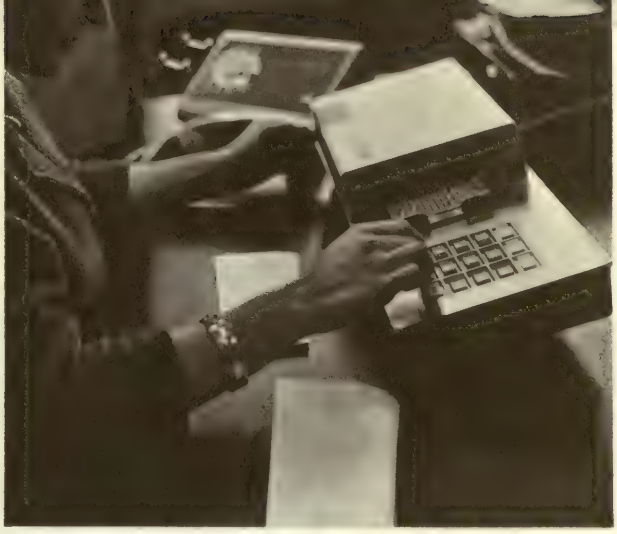
DIALING LONG DISTANCE

Today there are more than 3,000,000 miles of long distance telephone circuits, reaching out to every corner of the country. Along them pass more than 200,000,000 long distance conversations each year, as well as masses of information between business machines, television programs for our national networks, and a vast array of photographs, charts and even handwritten messages.

Calling long distance is easier and faster than ever before, especially in those places where it is no longer necessary for operators to set up each connection manually. Already, one out of every three Canadians can dial his own station-to-station long distance calls direct to some 80 million telephones in North America. This service, known as Direct Distance Dialing (or DDD), was first made available to Canadian telephone users at Toronto, in 1958. Since then it has been introduced in Montreal, Vancouver and a number of other cities, and it is continually being extended to more and more customers.

Direct Distance Dialing is mechanized long distance service — intricate automatic equipment guides your long distance call, first to the general vicinity of the place you are calling, then to the city, and finally to the telephone you have dialed. It keeps a record of the number you have dialed, times your conversation, and in some cases even identifies automatically the number of the telephone from which you are calling. And all this in a matter of seconds.

With DDD it is essential, of course, that no two telephone numbers on the continent should be alike. As a result, Canada and the United States have been divided into some 120 Numbering Plan Areas, each distinguished by a three-figure Area Code — when you dial the Area Code, your call is routed at once to the part of the continent you want to reach. Within each Numbering Plan Area, all telephones which can be reached by Direct Distance Dialing consist of seven figures (or sometimes of two letters and five figures). As this part of the number is dialed, the DDD equipment picks out the right city and then selects the correct telephone. (If



you call a telephone in the same Numbering Plan Area, there is naturally no need to use the Area Code.) If direct voice routes to a city are busy, DDD equipment will automatically try other routes until it finds an idle one.

Automatic accounting equipment tied into the DDD network times every long distance call and records the information the telephone company needs for billing. These details are punched in a paper tape which is later processed by special accounting machines.

Placing a DDD call is simpler and speedier than placing a long distance call through the operator — and in many parts of the country, DDD has also helped to bring down the cost of long distance calling. Direct Distance Dialing is one of the marvels of mechanization which have made it possible for the telephone industry to reduce long distance rates over the years — a three-minute call between Montreal and Vancouver, for example, which in 1931 would have cost $8.25, would now cost only $3.15.

WAY UP NORTH

Communications links with the remote regions of the Canadian north have been established by the telephone industry. Good communications are vital to Canada's northern development, and the aim of the telephone industry is to make access to the continental telephone network readily available everywhere in the North.

Long distance service and a number of telephone exchanges have been provided in many isolated parts of our vast country to serve mines, lumber camps, trading posts and the new communities springing up in the North. From Newfoundland to British Columbia . . . from Frobisher on Baffin Island to Red Lake in Ontario . . . from Uranium City in Saskatchewan to Hay River in Alberta . . . the telephone industry has accepted the challenge to link the far north with the rest of the world.

In addition to the services established through landlines, microwave radio relay and over-the-horizon scatter chains, many remote areas are provided with communications by high frequency radio systems. Such systems cover Labrador, northern Quebec, northern Manitoba, northern Alberta, and northern British Columbia, as well as much of northern Ontario. These radiotelephone services provide the long distance link to the national telephone network. Even aircraft operating in many of the far northern regions have radiotelephone "air-ground" service available to them now.

ACROSS THE OCEANS

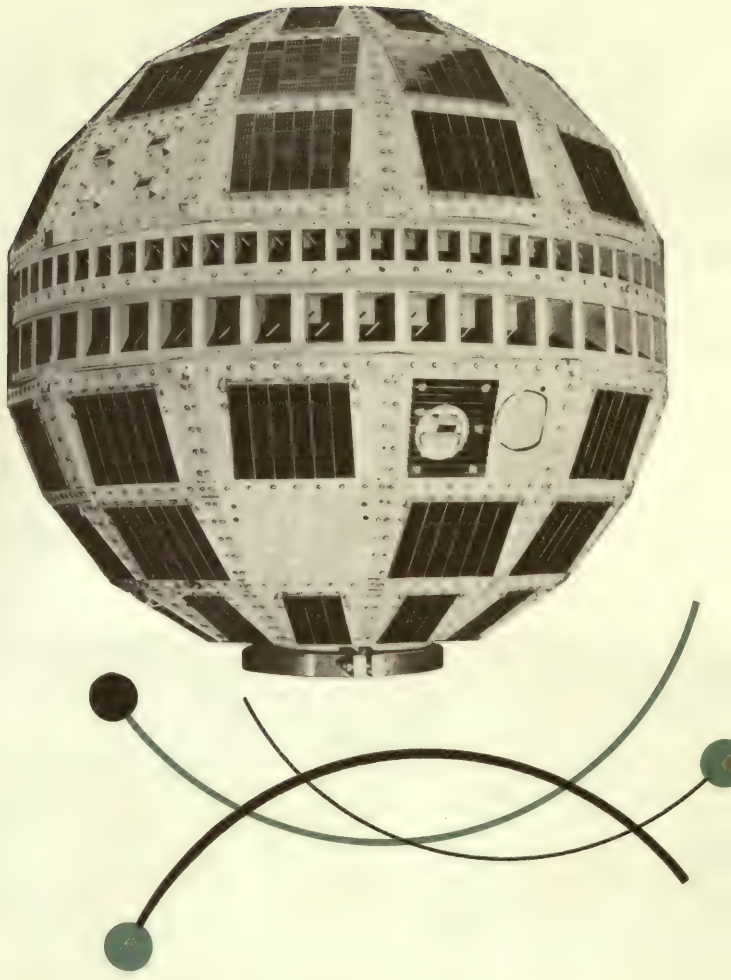
Calls can now be sped to 165 foreign countries or territories — a far cry from the day when the first Canada-England telephone service via the United States was opened in 1927.

Over the years, overseas telephone service has been provided mainly by means of radio. However, radio transmission is affected by atmospheric disturbances and magnetic storms, and the limited number of circuits in the radio spectrum available for overseas calling has also presented problems. Accordingly, for many years research was devoted to the development of under-water telephone cables to provide service over very long distances.

In 1956, after many years of study and at a cost of millions of dollars, three organizations — the American Telephone and Telegraph Company, the British Post Office, and the Canadian Overseas Telecommunication Corporation — opened the first underseas cable between North America and Great Britain.

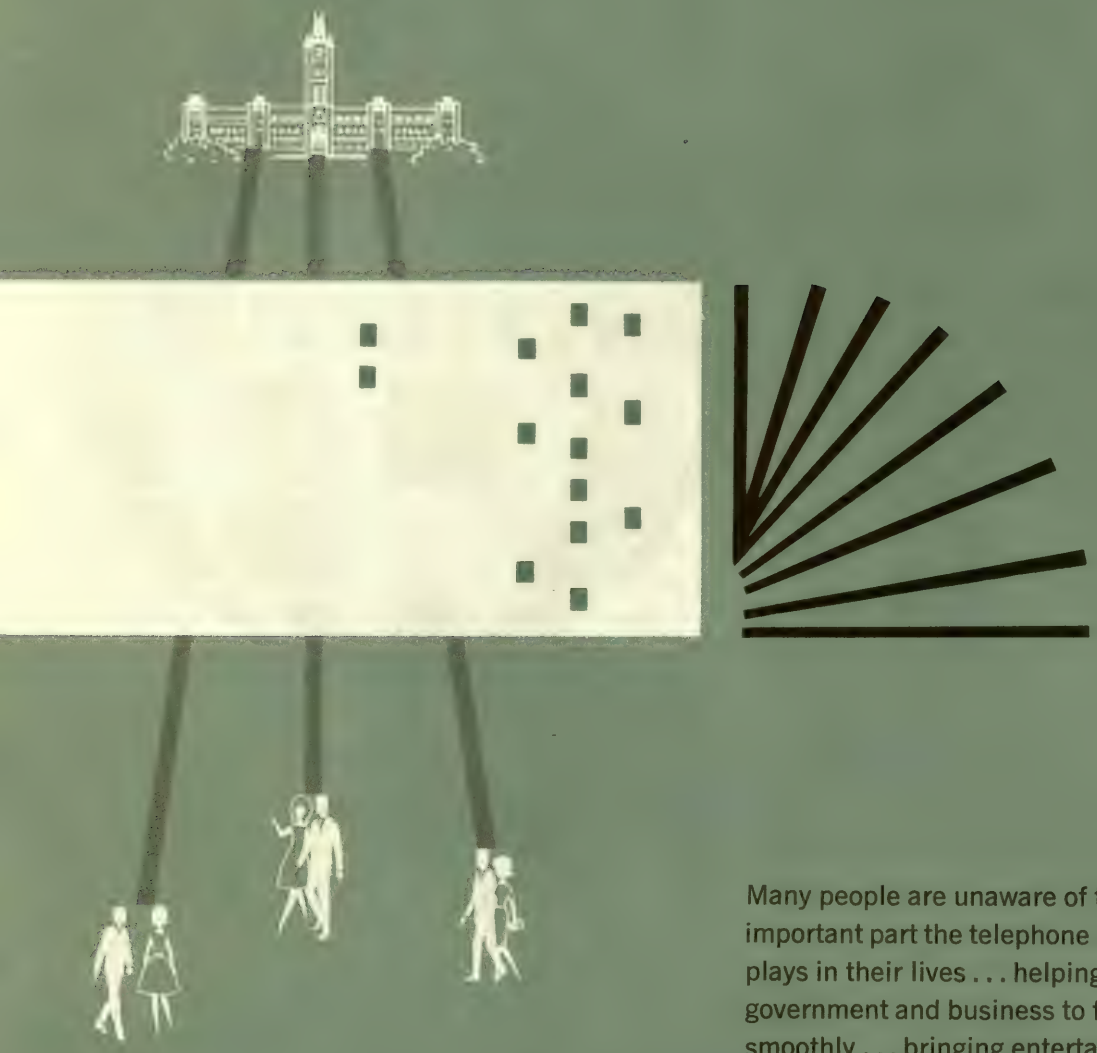
So successful was this first transoceanic cable that many more submarine cables have been laid since, opening a whole new era of overseas calling. The repeaters, or amplifiers, built into these cables represent a tremendous advance in technology — they were designed to serve without maintenance for at least 20 years.

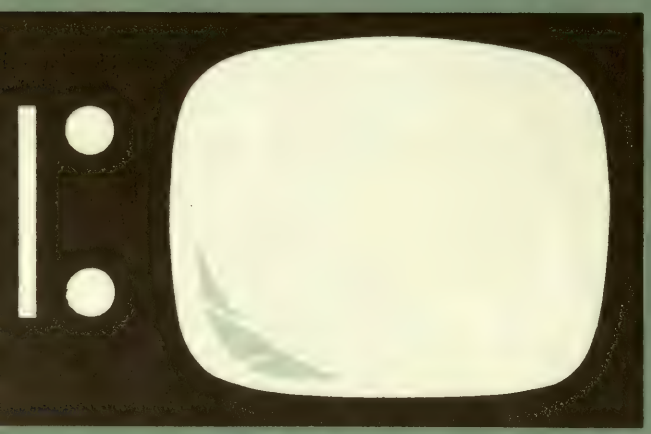
When you place an overseas call from Canada it is sped over local and long distance circuits to the overseas operator; from this point the Canadian Overseas Telecommunication Corporation carries your call.



INTO SPACE

Communication by man-made satellites could well be the answer to space-age demands for increased international communications services. Satellites will be another means of interconnecting this country's communication network with those of other nations. They will also make it possible to transmit television and high-speed data across the oceans — something that present cables cannot do. Satellites now being developed will pick up radio signals carrying two-way conversations, data or TV programs, amplify them, and send them on to receiving stations thousands of miles away.





Many people are unaware of the important part the telephone industry plays in their lives . . . helping government and business to function smoothly . . . bringing entertainment and news into Canadian homes . . . and aiding in the defence of our country.

The telephone industry's communications network is more than a carrier of conversations between people. It is also a carrier of data between business machines, of radio and television programs, of teletypewriter messages and handwritten messages . . . in fact of any information which can be turned into electrical form.

THE TELEPHONE IN YOUR LIFE

Once a luxury, the telephone is nowadays a necessity in the lives of most Canadians. In a country where distances are so great, it is natural that people would want to do much of their 'travelling' by telephone.

In response to this country's need for quick, easy and economical communications, the telephone systems of Canada are continually expanding the scope and improving the quality of the services they offer.

Today, for example, the average Canadian family has more convenient telephone service than ever before. As communities grow and suburbs mushroom beside our cities, people generally want a wider local calling area — they want to call friends and relatives in neighbouring exchanges, and they want to do so without paying long distance charges for each call beyond their own exchange. The telephone companies have met this need with Extended Area Service, which broadens the local calling area to include nearby communities — already more than four out of five people in the Bell Telephone Company's territory have this service.

Telephone service for the home has also been improved in appearance and convenience — there is now a wide variety of telephones and services from which to choose, including wall and desk telephones in a number of colours, telephones with built-in night lights, Home Interphone service (which lets you answer the door and talk from room to room by telephone), and the Bell Chime (which you can set to provide a musical chime, an ordinary telephone 'ring' or an extra-loud ring).

Business firms, too, benefit from the advance of modern communications. Telephones like the Call Director, modern push-button switchboards, pictured on page 20, intercommunicating systems, and even private central offices designed for the use of a single firm, are among the developments which make the telephone a quick and efficient way of sending business information.

This desk-top control unit is typical of many modern switchboards used by Canadian businesses. An outside call to a busy telephone can be held in the equipment until the line is free, or the call can be transferred automatically to another phone.

Many businesses are today looking farther afield than before for markets for their products and services. Like individual Canadians, they have welcomed Extended Area Service; but a large number of them have a need for still more extensive toll-free calling areas. It is this need which several telephone systems are satisfying today with Wide Area Telephone Service. With Wide Area Telephone Service, business customers can call as often as they wish and talk as long as they like to telephones in any part of Canada they may select, for a flat monthly rate. Of the seven 'zones' available, the smallest may be a part of a province, the largest all of Canada.

Business, government and other institutions use their communications service for many things beside the transmission of voice conversations. The daily newspaper tossed on your door-step, for instance, gets much of its news over private line teletypewriter facilities leased from telephone companies; and several of the photographs it uses may well have been transmitted along telephone circuits. In the following pages are described just a few of the uses to which the Canadian telephone industry's vast communications network is put.

Drive-up telephones serve Canadians on many streets and highways.

PRIVATE LINES FOR SPECIAL PURPOSES

Telephone companies lease individual communications circuits to many organizations for their exclusive use. Private lines (as these individual circuits are called) are especially useful to industrial concerns which need to transmit a large number of messages rapidly between different locations within their organization. For example, a mail-order house might receive daily inventories from each of its distributing houses. A pipeline company — piping gas to users hundreds of miles distant — may use private lines to read instruments and gauges at a point several hundred miles away. Law enforcement agencies, government bodies, stock exchanges and the press are among other large users. With TELPAK, another recently introduced service, customers can even be provided with "electronic highways" between cities of their choice. At their option, they can use their TELPAK service to carry ordinary telephone calls, to send information from teletypewriter and facsimile machines, or to transmit data between even the most advanced computers.

The Speakerphone, illustrated here, provides "hands-free" telephoning at the touch of a button.

Faster than fingers and always accurate, the Rapidial automatic dialer stores about 300 telephone numbers in its electronic " memory" and dials them at a touch of a bar.

TRANSMITTING DATA

The telephone network is now used to transmit news photographs, black and white sketches, maps and written material, and to carry all kinds of data.

Today business and industry are using electronic devices to analyze large amounts of information. Modern computers, for instance, can process data much faster and more accurately than humans — and with Data-Phone service, this information can be sent on its way over the telephone network at incredible speed.

Transmitting information from punch cards, paper tapes and magnetic tapes, for example, can be just as easy as placing an ordinary telephone call.

Data-Phone data sets convert electrical impulses from business machines into tones which can be transmitted over the telephone network. The Data-Phone data set is shown here with a telewriting machine.

Since the early days of radio broadcasting, the telephone industry has helped bring entertainment into Canadian homes. The Trans-Canada Telephone System's microwave network carries television programs for the Canadian Broadcasting Corporation and CTV Television Network Limited. Telephone companies also provide special mobile microwave units and video-pair cables for bringing television programs from remote locations to station transmitters, as well as closed-circuit television systems for educational and industrial purposes. Radio programs are carried across Canada and local connections are also provided frequently.

TV microwave pick-up units, like the one pictured are in constant use for relaying outside programs, particularly sports events.

MOBILE TELEPHONE SERVICE

General mobile telephone service provides two-way voice communication for people travelling on land or water. Mobile telephones are connected to the regular telephone network by radio, and customers can talk from cars or trucks to any telephone on the network.

Private mobile telephone service is a two-way radio system for use in taxis, police cars, trucks and for operation in factories. It offers point-to-point communication between a dispatcher and his fleet of vehicles.

Mobile telephone service provides instant communication to and from vehicles on the move.

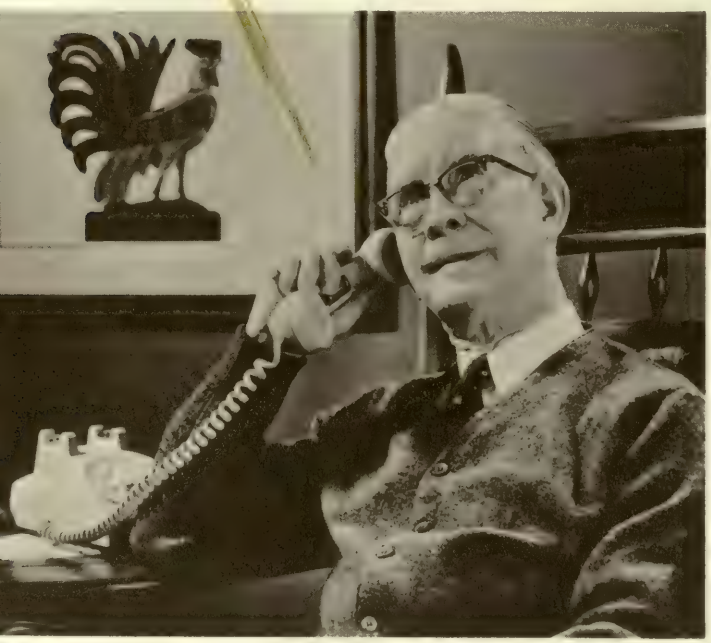
Modern cable layers make it possible to bury miles of cable along the side of a country road quickly and efficiently, bringing service to outlying communities.

SERVICE ON THE FARM

New techniques adopted by many Canadian telephone systems have helped to expand service in rural areas — for example, modern cable layers can place wire underground and cover it in a single operation, speeding the task of burying telephone lines to outlying points. On the farm itself, special communications systems have been developed to meet the farmer's specific needs. Intercommunication systems linking different buildings use special telephones which allow the farmer to converse without holding the receiver — outdoor signals tell of incoming calls. These and other services have helped to make today's telephone service on the farm far different from that of a few decades ago.

HELP FOR THE HANDICAPPED

Two new developments make life a little easier for the less fortunate. The Electronic Artificial Larynx is a "new voice for the voiceless" — it enables people whose larynx has been paralyzed or removed to "speak" with or without the telephone. And, for people with impaired hearing, a special telephone is available with a built-in switch for adjusting the sound volume.



FACILITIES FOR DEFENCE

For many years the telephone industry has performed important defence work for the government, and it also provides communications installations for national survival warning networks and the Emergency Measures Organization. Special communications networks and defence systems have been built in the Canadian north — the Mid-Canada Line, for example — and many circuits in the regular telephone network are leased for defence purposes.

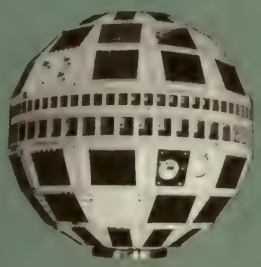
Fast dependable communications to points throughout the country are necessary in planning our defences. To ensure uninterrupted operation of these vital services, the telephone industry has created a wide variety of 'alternate routes', so that even if telephone circuits in one area are put out of action, messages will be able to reach their destination by another route.

The telephone industry's coast-to-coast operations, integrated nature and long experience in communications make it uniquely fitted for an important role in the nation's defence. The telephone system's nation-wide long distance network of more than 3,000,000 miles of telephone circuits — all parts of which can be linked together — is of basic importance to military needs.

A LOOK AHEAD

In this booklet you have seen and read about many of the communications services now being offered by the members of the telephone industry. On the horizon there are many new developments – some of them still in the blueprint stage – which will become commonplace in the next few years.

What tomorrow's telephone service will be like will depend on the needs of the Canadian people. During the past decade technical progress in communications has been swift. And during the next ten years it will doubtless make even greater strides forward. For the story of the telephone in Canada is as dynamic as the nation itself. It is a story to which new chapters are being added constantly by the skilled men and women of the Canadian Telephone Industry.



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